



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

vestigation.¹⁶ In this way the two sides of the self-realization theory may be brought together, for the reflective process which the concept of self properly stimulates and controls must issue in a reconstruction of the past in continuity with an immediate concrete intention. It may be seriously questioned whether the modern historian conceives it to be desirable or possible to attain and present a photographic view of his chosen period in the past either precisely as it appeared to the main actors and their contemporaries or in its true 'metaphysical' perspective as it appeared to the Absolute Self. On the contrary, history must apparently be written afresh for each succeeding age with new selective emphasis and perspective and new principles of correlation and classification expressive of the dominant interests and characteristic problems of the age in question. The modern tendency toward the institutional and economic points of view in history may be mentioned in this connection.

It has been my purpose in this paper to suggest an abandonment of the endeavor to define an ethical ideal and the development of a practical logic of conduct which shall constitute the substance of ethical theory. In this way ethics may retain its proper and traditional normative character and avoid the mistaken course, so strenuously urged of late, of becoming a mere natural history of actual moral judgments. At another time I shall hope to present some positive suggestions toward such a logic of conduct as I have tried to show the need of and to defend the possibility of such a logic against certain obvious objections.

HENRY W. STUART.

UNIVERSITY OF IOWA.

DISCUSSION

PROFESSOR WARD'S PHILOSOPHY OF SCIENCE

IN a recent number of this JOURNAL (Vol. I., No. 10) Professor Creighton urges certain considerations against my interpretation of Ward's 'Naturalism and Agnosticism.' In my original article ('Recent Philosophical Procedure with Reference to Science,' Vol. I., No. 7, of this JOURNAL) I cited this book as a case of unsound philosophical criticism of science, contending that it sought to refute science in detail, and that it was conceived in a hostile and negative

¹⁶ For some very suggestive and pointed criticisms of the deductive logic of history implied in the self-realization ethics see the addresses on 'The Basis of Morality' and 'Philosophy and the Social Problem' (pp. 82-85), in Adamson's 'The Development of Modern Philosophy, with other Lectures and Essays,' Vol. II.

spirit. Professor Creighton points out that Professor Ward does not aim to refute science, but naturalism, or science given a dogmatic and metaphysical form. In the last number of the JOURNAL, Professor Ward makes substantially the same statement in his own behalf. The question of the author's intention is of course beyond dispute. He has undoubtedly been concerned primarily with 'a form of philosophy,' and not with science. It is equally indubitable, however, that he has sought to overthrow naturalism by a certain interpretation of natural science. And in spite of my general sympathy with refutations of naturalism, I claim that this interpretation is a case of bad philosophical procedure with reference to science. Since I seem not to have justified this thesis, nor even to have made it plain, I am very glad of this opportunity to submit a brief outline of the case.

1. I contend that Professor Ward *injects philosophy into the field of natural science*. By this I mean that his philosophy takes sides within the realm of the problems of natural science. This appears clearly in the cases of biology and psychology. In these fields he announces himself as in favor of what he calls the 'levelling-up' method, or the method which applies to 'lower' or simpler stages of life, the categories peculiarly characteristic of the 'higher' or more complex.¹ Such a method means the introduction of teleology into biology, and of spiritual activity into psychology. One is allowed to presume that teleology 'levelled up,' is spiritual activity. But there is no apparent reason why the inorganic world should not also be levelled up. Its processes are as hollow and unreal without activity, as the sensationalistic psychologist's elementary states of consciousness. And if the ultimate metaphysical category is to be counted in favor of a special working conception in a particular field of science, we have relapsed into the intrusive method of Hegel and Schelling, a method that I had thought to be long since discredited. We are not asked to give an idealistic interpretation to nature as a whole, but to use the hypothesis of immanent mind where the problem of life is at present baffling. Similarly in psychology we need the conception of activity for the solution of outstanding problems, since 'presentationism is adequate to (say) nine tenths of the facts, or better, perhaps, to nine tenths of each fact.'² Professor Ward is, of course, entitled to speak as an expert in psychology, and the fact that he does not stand alone in subsuming a philosophy of the self under the head of psychology, testifies to the present methodological cross-purposiveness of that science. But even he can not deny that such psychology as is founded upon the postulate of psycho-physical

¹ 'Naturalism and Agnosticism,' Lecture X.

² 'Modern Psychology,' *Mind*, N. S., II., p. 80.

parallelism, is developing a body of truth homogeneous with the natural sciences, and capable of a similar and approximately exact formulation. Nor can one fairly deny that in physiology teleology is regarded with distrust even by those who do not exclude it, retaining it as a symbol of residual obscurity. All this has nothing to do with the sufficiency of mechanical or quantitative categories in any department of reality, but it does mean that the body of truth of which mathematics, mechanics and physics are the foundation must be regarded as a whole that tends to comprehend all of nature in its own manner, and to become unitary and systematic in its own terms. An idealism that attempts to stand in the way of the development of this body of truth, and to deny such categories as it evolves in its own growth and defines in its own use, misconceives the function of philosophy and endangers its honor.

2. But I find another and a more radical defect in this book: *instead of a rational apperception of science, it offers us a demonstration of its ineptness.* I shall make only a passing reference to the fact that it is largely a charge of inconsistency urged against individuals, and inspired with an over-fondness for their foibles. This feature is prejudicial to the book's weight, and prevents concentration upon topics. But it is a far more serious matter to have *attached the predicate of unreality to the conceptual objects of science.* I submit some of the author's formulations of the conclusion of his critical examination of the mechanical theory. "If the conception of mechanism enables us to summarize details that would otherwise bewilder us, this can not possibly nullify our independence. . . ."³ "Such conceptions may furnish an admirable descriptive scheme of 'the motions that occur in nature,' but they explain nothing."⁴ "In short, we may take it as definitely conceded by the physicists themselves that descriptive hypothesis takes the place of real theory."⁵ "But the simple atom or center of force of Boseovich, and the primitive fluid of Lord Kelvin, are not *veræ causæ*: we must not call them fetishes, but they are assuredly fictions."⁶ Professor Ward also quotes approvingly Pearson's well-known characterization of science as 'conceptual shorthand.'⁷ The justification of these statements is to be found in the refinement which such conceptions as those of matter, mass, force and energy have undergone in the course of the history of science. These terms now connote that which they mean in the calculations and formulas of

³ 'Naturalism and Agnosticism,' II., p. 251.

⁴ *Ibid.*, II., pp. 88-89.

⁵ *Ibid.*, II., p. 73.

⁶ *Ibid.*, I., p. 143. Cf. also pp. 144, 145.

⁷ *Ibid.*, I., p. 83.

science, and are no longer charged with the vague ontological predicates of common sense. So far Professor Ward's exposition is unexceptionable, and in its historical presentation of the topic highly instructive. But I am utterly unable to see the reasonableness of holding that science has lost its hold upon reality by becoming more exact. I should suppose the term 'fiction' to be much more applicable to vague and undefined conceptions such as *power* and *substratum*, and that science had gained steadily in truth in so far as it has gained in precision and simplicity. It appears that to Professor Ward's mind simplicity is not a logical criterion, but a subjective interest. Short of the relegation to subjectivity of all logical ideals, unity and consistency among the rest, I see no grounds upon which such a presumption can be defended. To my mind there is no graver error current in our own day than that which attributes a caprice and transiency to the results of science because of the latter's ideal of descriptive economy. That ideal means nothing in any way distinguishable from such ideals of definiteness, system and cogency, as inform any enterprise of thought. And here, as in all thought, it is impossible to believe otherwise than that the result approached in the pursuit of such ideals, *is some truth about reality*. Professor Ward appears to believe otherwise. The progressive purification of physical conceptions is an 'advance towards what looks like physical nihilism.'⁸ "To suppose," he says, "that the rigorous determinism deducible from the abstract scheme—for the simple reason that it has been put into its fundamental premises—*must* apply also to the real world it has been devised to describe, is just as absurd as—to take a very trivial illustration—it would be to say that a man must fit his coat, and not that the coat must fit the man."⁹ Before I can understand such statements I must know how a coat can be *fitted* to a man without the man's fitting the coat, or how a scheme '*devised to describe*' the real world can fail to apply to it. I have no quarrel with such statements as that the realm of nature is not 'primary, independent, and complete in itself.'¹⁰ But such a claim, if true, should be substantiated by the discovery of other real realms, or a definition of the categories required to make nature concrete. Professor Ward has, of course, some such categories in mind. He speaks frequently of 'explanation,' 'efficiency' and 'activity,' as indispensable to cause and substance. The present descriptions of science have lost the latter because they have omitted the former.¹¹ Now it is commonly supposed that the new ideals of de-

⁸ *Ibid.*, I., p. 140.

⁹ *Ibid.*, II., pp. 67-68.

¹⁰ *Ibid.*, II., p. 247.

¹¹ *E. g.*, *ibid.*, I., p. 64; II., pp. 79, 237, 247.

scription, law and matter have thrown light upon the meaning of explanation, cause and substance respectively; that in accepting them we have not only ceased to posit angels who move the planets, but have also ceased to need them. But even if such is not the case, *the formulation of the higher or supplementary categories is the first thing in order.* There can be no proof of abstractness prior to an exact definition of the ideal of concreteness. Otherwise the presumption is in favor of the sufficiency of what must be admitted to be true. Because he has overlooked these considerations Professor Ward has been led to argue for the unreality of scientific concepts from their very definiteness and critical exactness.

There is no clearer statement of the view to which I am here taking exception, than that which appears in those pages of the second edition to which Professor Ward specially refers us. He there says: "To distinguish them from the old school, whom we may fairly term physical realists, we might call the new school physical symbolists. . . . But one believes that it is getting nearer to the ultimate reality and leaving mere appearances behind it: the other believes that it is only substituting a generalized descriptive scheme that is intellectually manageable, for the complexity of concrete facts which altogether overtask our comprehension."¹²

I object to these expressions because they attribute a certain arbitrariness and sportiveness to the conceptual truths of science. Whatever symbolism, or intellectual manageableness appears in the formulation of this truth, is an affair of thought, and is not reducible to any demand for the picturesque or the expedient. The discovery of the part played by the ideal of simplicity in the progress of science, has not debased science, but has enriched logic. Nor can I see that the relative purity of the conceptions of modern physics makes that science less germane to reality. On the contrary, the conceptions tend to free it from contradiction, and to reduce it to that form in which any final knowledge of reality must accept it.

As suggestive of the manner in which a general negative attitude tends to justify itself loosely and without careful discrimination, let me conclude with an instance taken from the Supplementary Note appended to the first volume of the second edition. It there appears that the author finds evidence of the unreality of scientific concepts in the fact that they must periodically submit to correction. He quotes Boltzmann as follows: "To-day the battle of opinion rages tempestuously. . . . What will the outcome be? . . . Will mechanical models in any case persist, or will new, non-mechanical models prove better adapted, and the component factors of energy control absolutely the domain? . . . Is it possible that the conviction will

¹² 'Naturalism and Agnosticism,' second edition, I., pp. 304-305.

ever arise that certain representations are *per se* exempt from displacement by simpler and more comprehensive ones, that they are *true*? Or is it perhaps the best conception of the future to imagine something of which one has absolutely no conception?"¹³ In the same note Professor Ward concludes his criticism of Principal Rücker as follows: "After all, then, he is only defending a working hypothesis, and one, moreover, that has lost greatly in prestige in the last half century. But if the atomic and other theories of the constitution of matter are but working hypotheses, and hypotheses strictly confined to physical phenomena, there is no justification for a theory which maintains that mechanism is fundamental everywhere and reduces the facts of life and mind to epiphenomena."¹⁴ That the provisional character of its results should be urged against any division of knowledge is to me intelligible only in the case of a too persistent attempt to discredit it. I fail to see how even the Spiritual Monism of Professor Ward's choice can be excepted from the general rule that all knowledge is subject to correction, and that to be convinced of truth is to be open to conviction. I can only believe that his use of such considerations in his argument is the sequel to his misconception of the critical function of philosophy.

After a reperusal of the two editions, guided by the suggestions of Professor Creighton and Professor Ward himself, I see no reason to alter my opinion that 'Naturalism and Agnosticism,' interesting and profitable though it may be, is vitiated by its general attitude to science. I cheerfully testify to the pleasure and instruction the book has afforded me, but, am, nevertheless, prompted to urge that no philosophy of science is sound which does not primarily seek by an analysis of its concepts to understand science on its own grounds. Philosophy may understand science better than science understands itself, but only by holding fast to the conviction of its truth, and including it within a critical system of truth.

RALPH BARTON PERRY.

HARVARD UNIVERSITY.

REVIEWS AND ABSTRACTS OF LITERATURE

The Neighbor, the Natural History of Human Contacts. N. S. SHALER.
Boston and New York, Houghton, Mifflin and Co., 1904. Pp. x + 342.

A book by Professor Shaler always promises pleasure as well as profit and this volume is no exception. Indeed, an unusual charm pervades this book. The methods of scientific inquiry are linked with high ethical motives and we can not but realize that it is the fruit of ripe experience,

¹³ 'Naturalism and Agnosticism,' second edition, I, p. 307.

¹⁴ *Ibid.*, I, pp. 314-315.